Custom Learning Management Systems

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Overview

- The Operational Support System (OSS) today
- The Custom LMS as part of your e-Learning structure
- Pitfalls in LMS development

The Operational Support System today

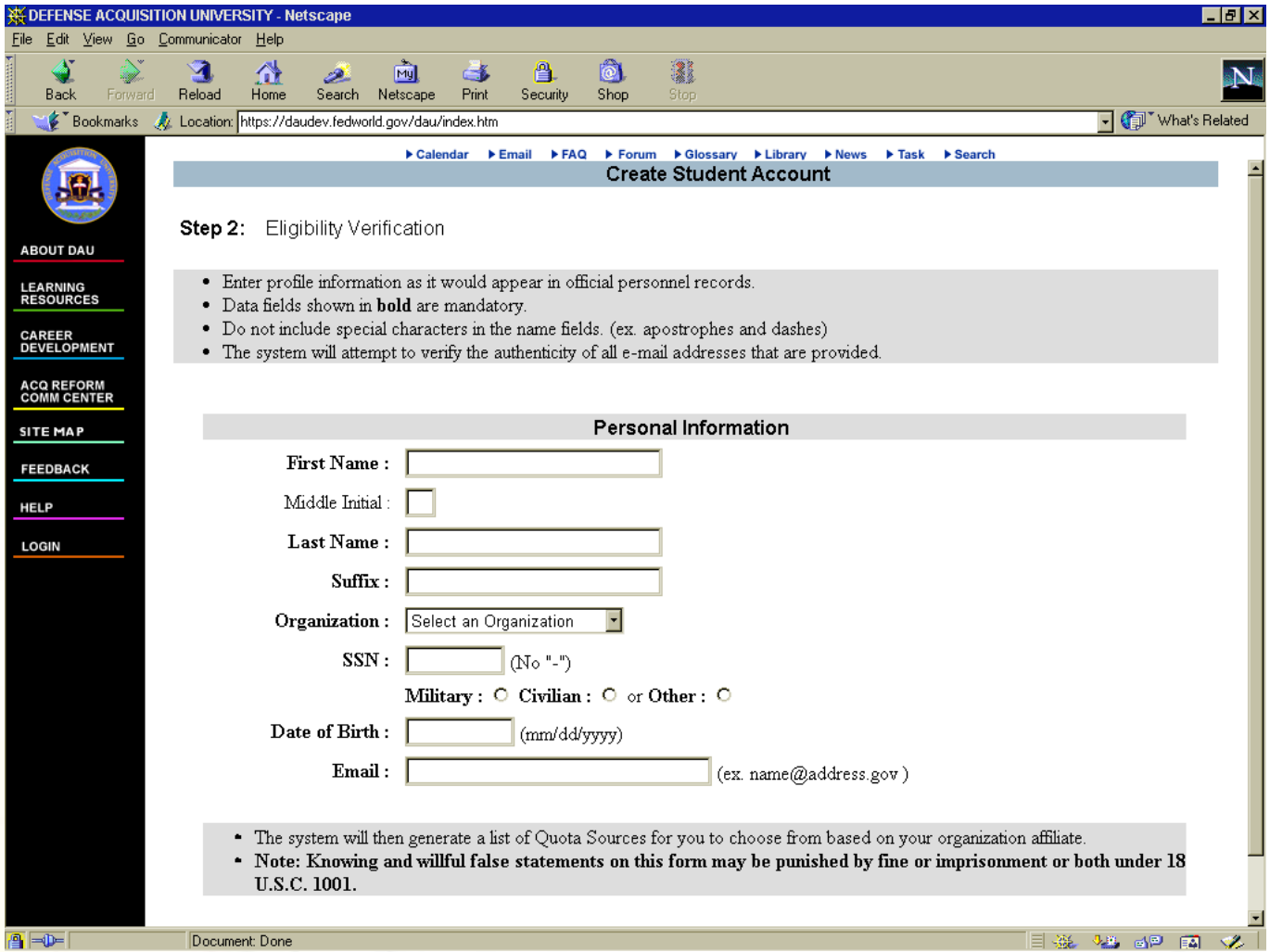
Major functions of the OSS

- Student account creation
- Role-based user access
- Enrollment
- Course Delivery
- Collaboration
- Course Evaluation
- Testing
- Reports
- Help

https://daudev.fedworld.gov/dau/
Defense Acquisition University

Student account creation

- User accounts
- Validation with DEERS or internal table
- Integration with ATRRS database

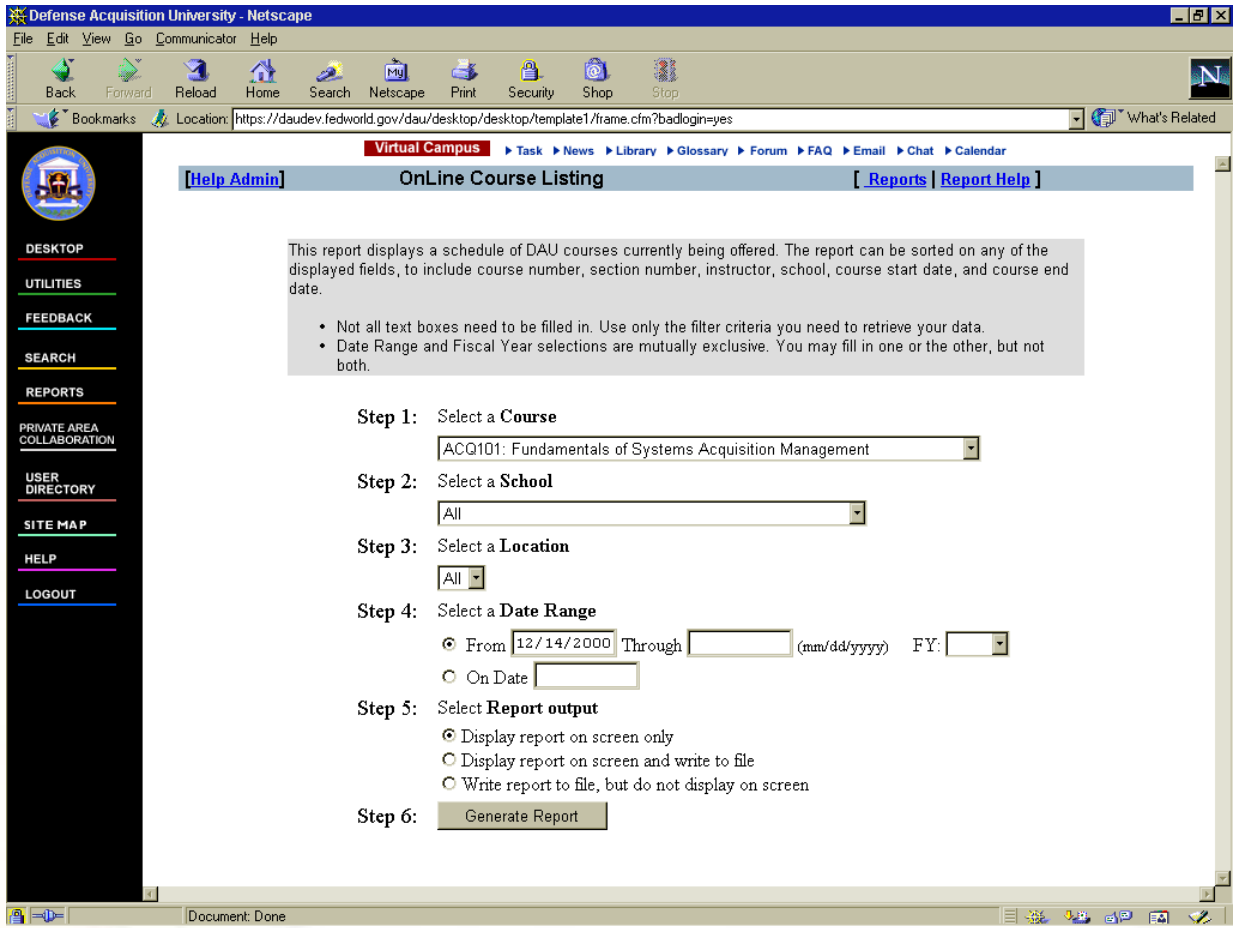


Role-based user access provides tailored “desktops” for each user group...

- Security Model
  - User role
    - Administrator
    - Registrar
    - Instructor
    - Student
  - Privilege Model
  - Data filter

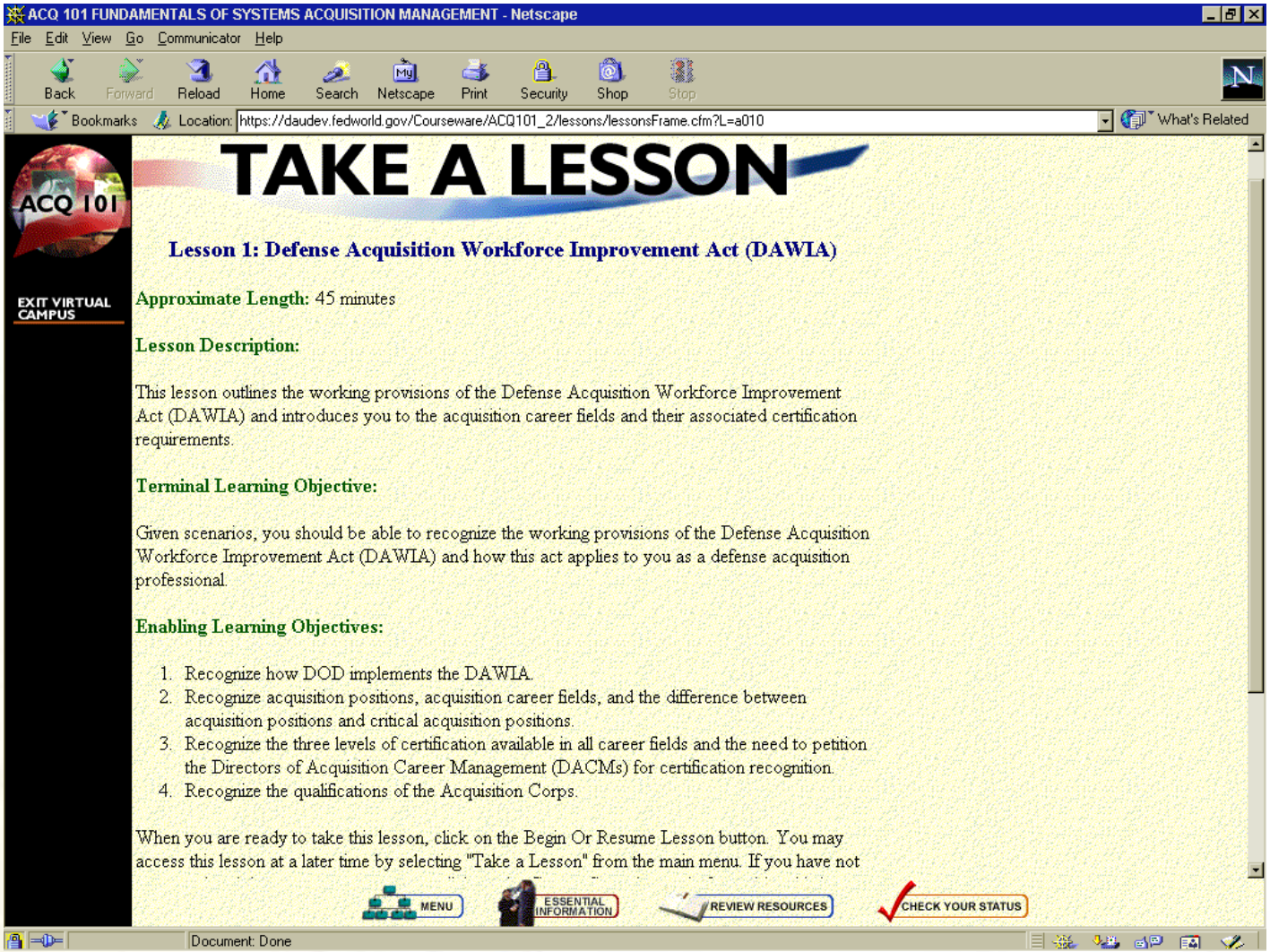
The enrollment process is automated with business rules that can be tailored...

- Student requests enrollment in course
- Registration manager approves enrollment
- System maintains student course schedule
- Course quotas on enrollment can be applied



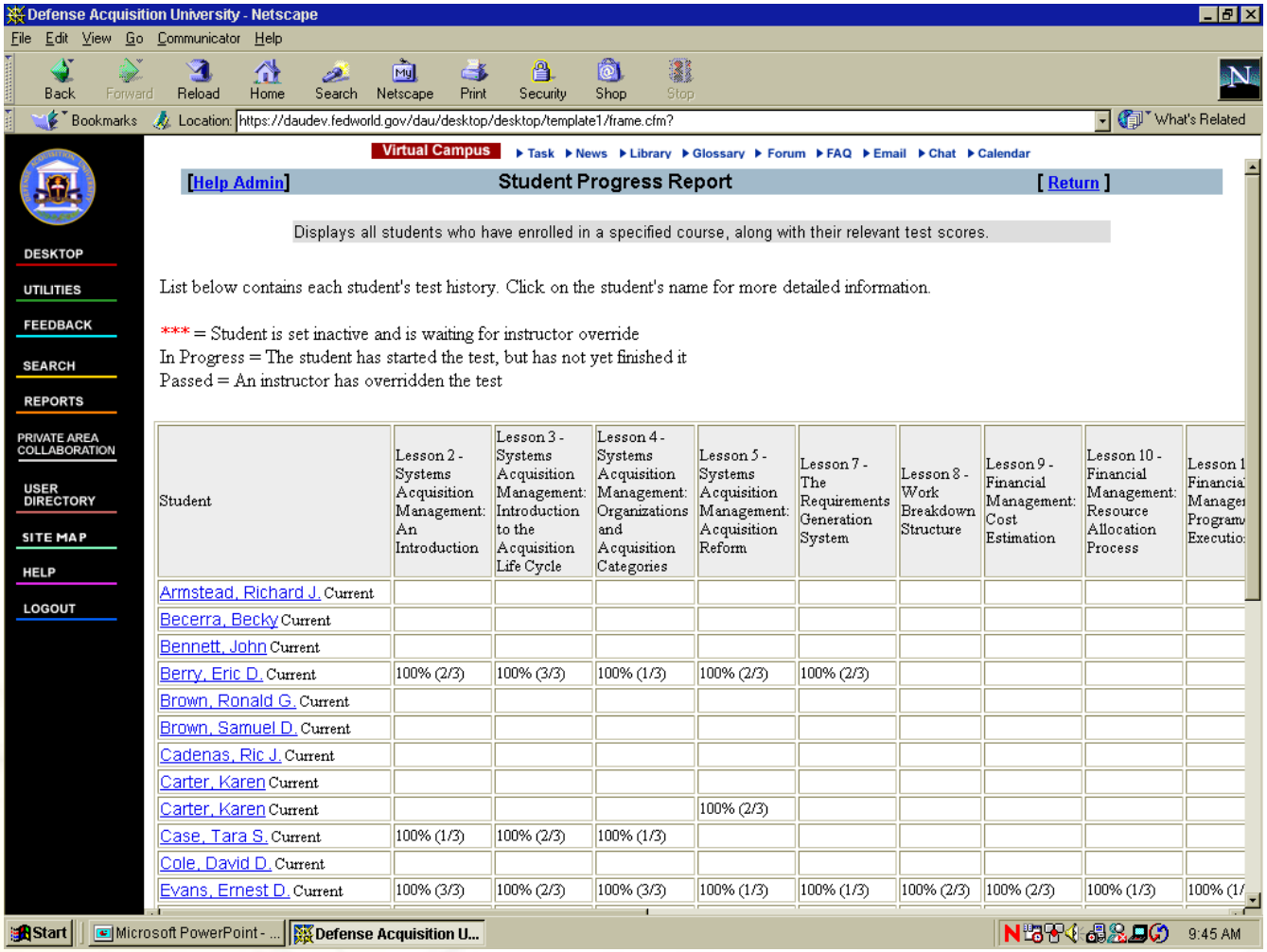
Course delivery of highly interactive content...

- Bookmarking where student left off



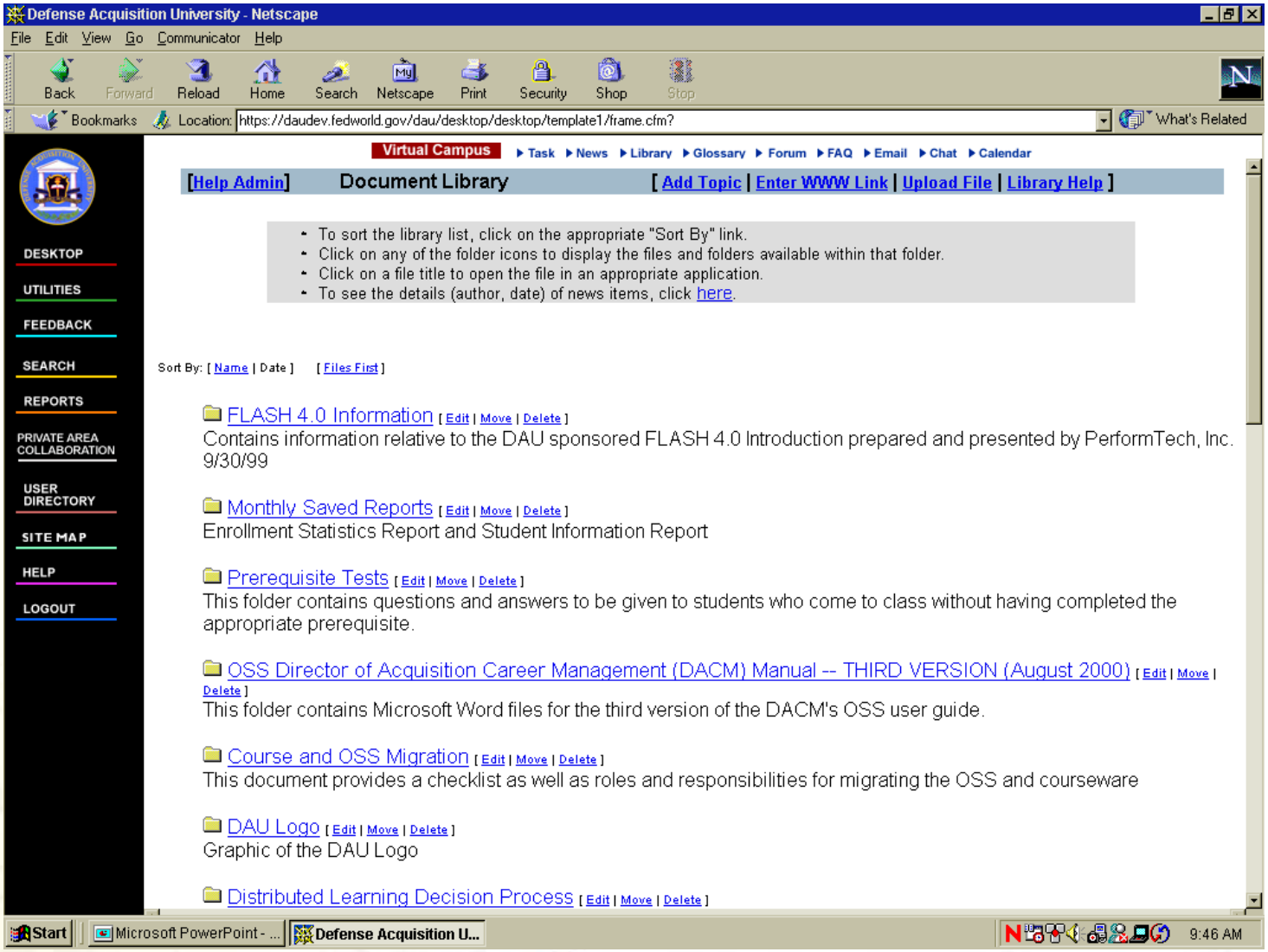
The system is “aware” of each student’s progress through the course...

- Tracking of student progress



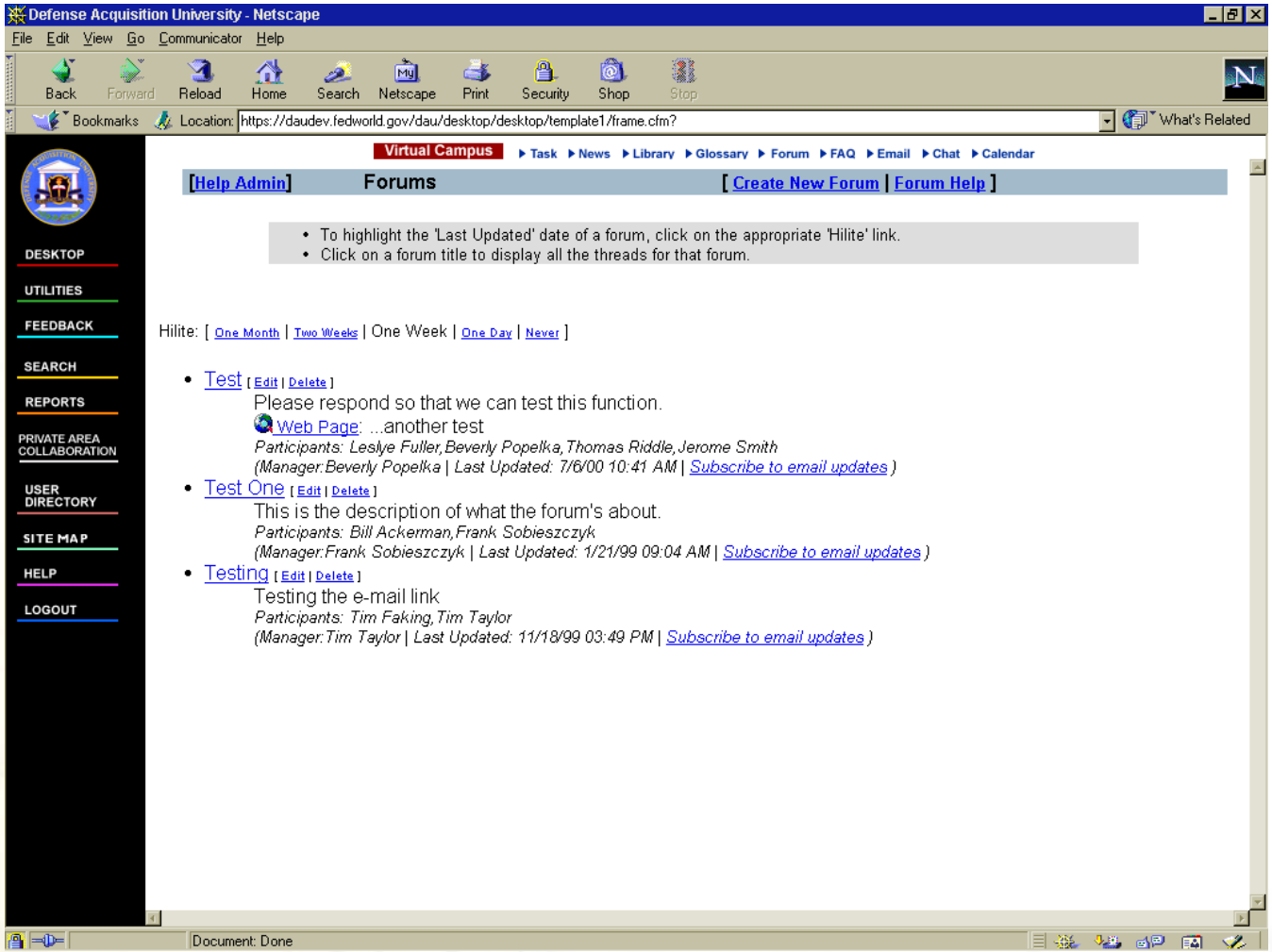
Collaboration among professionals is key...

- Library
- News
- Threaded forums



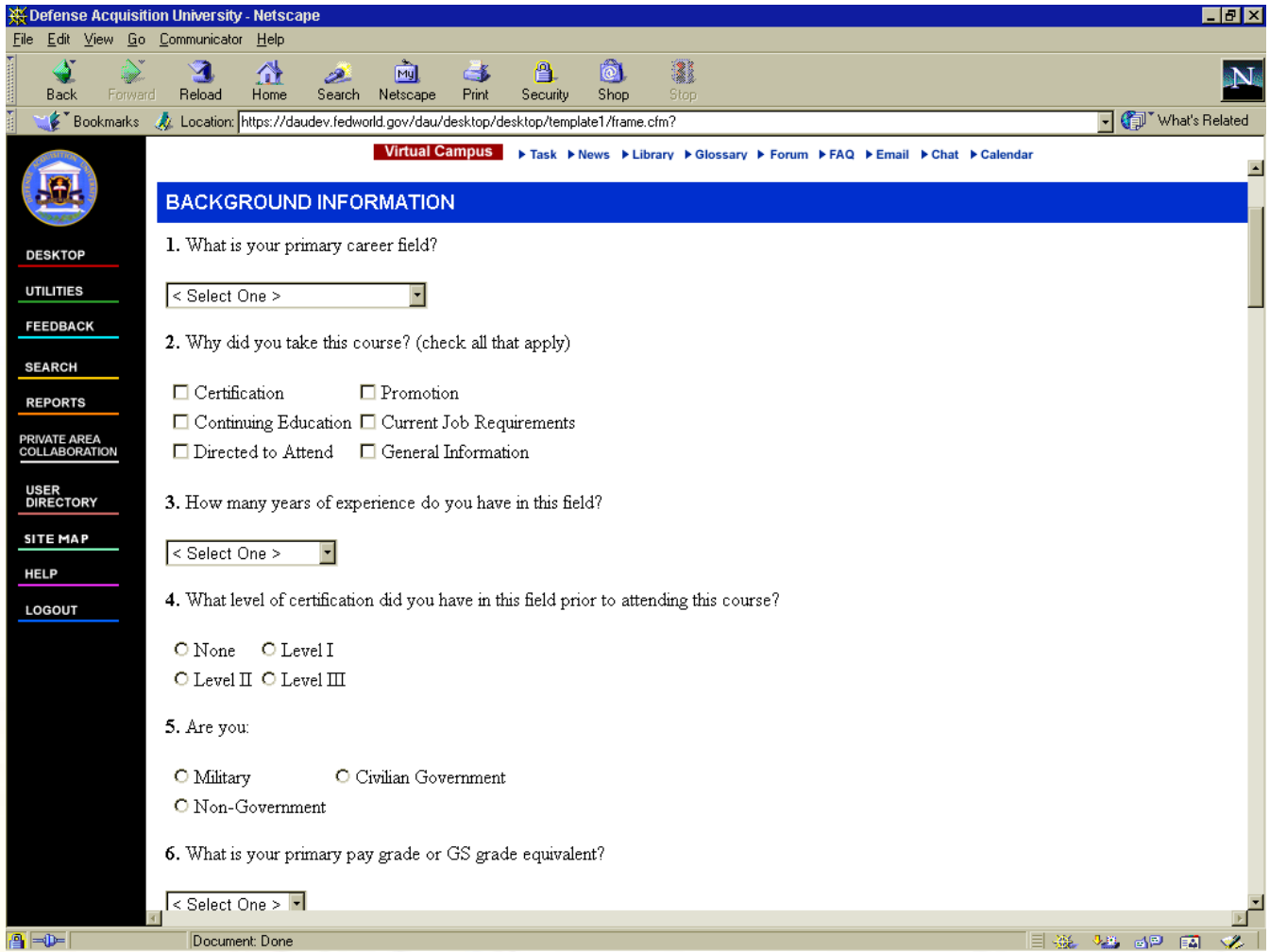
The system can be used for project tracking & tasking as well as learner-centric management...

- Calendar
- Tasks
- Email



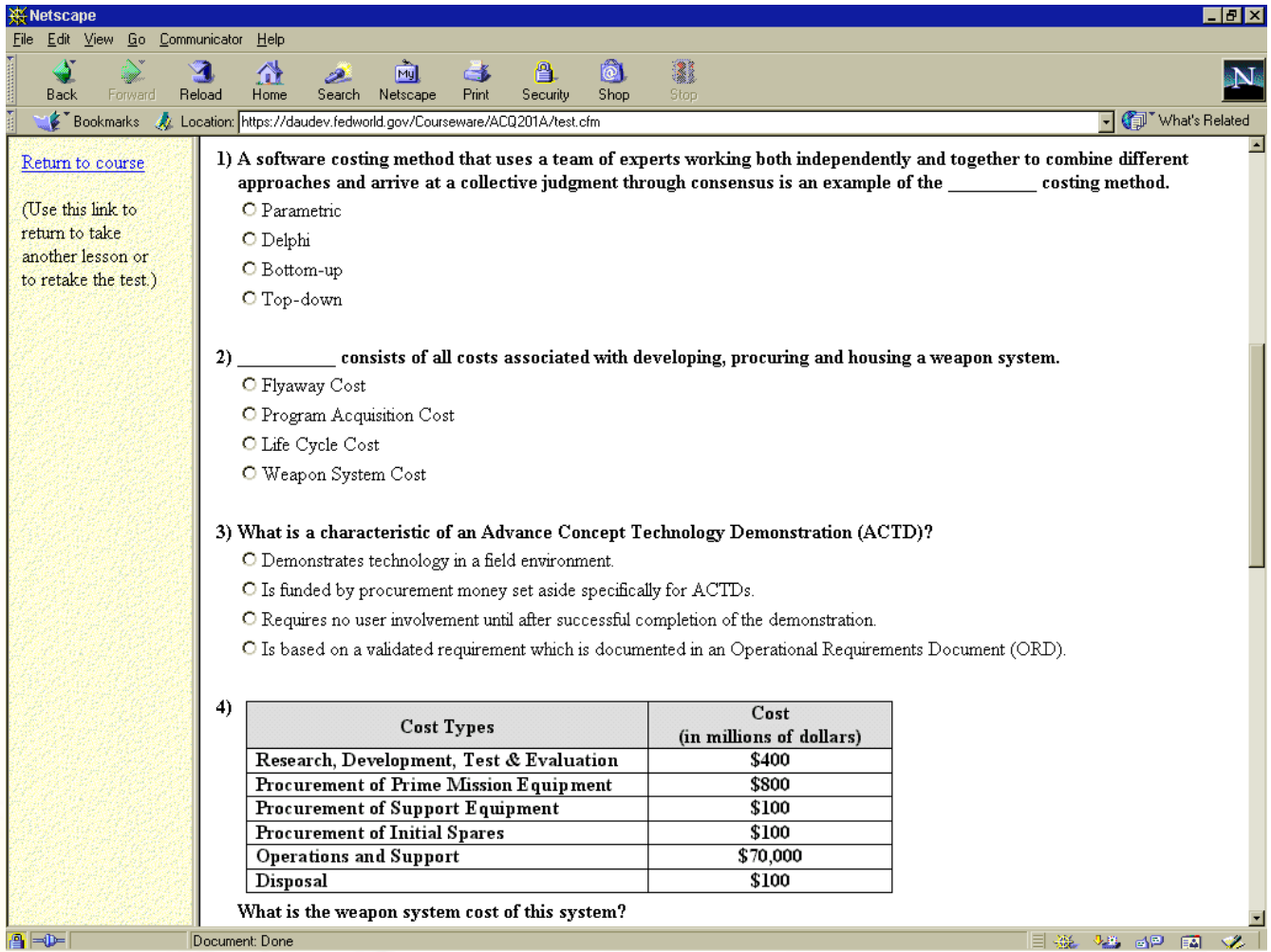
Course evaluations are based on multiple dimensions...

- Dimensions



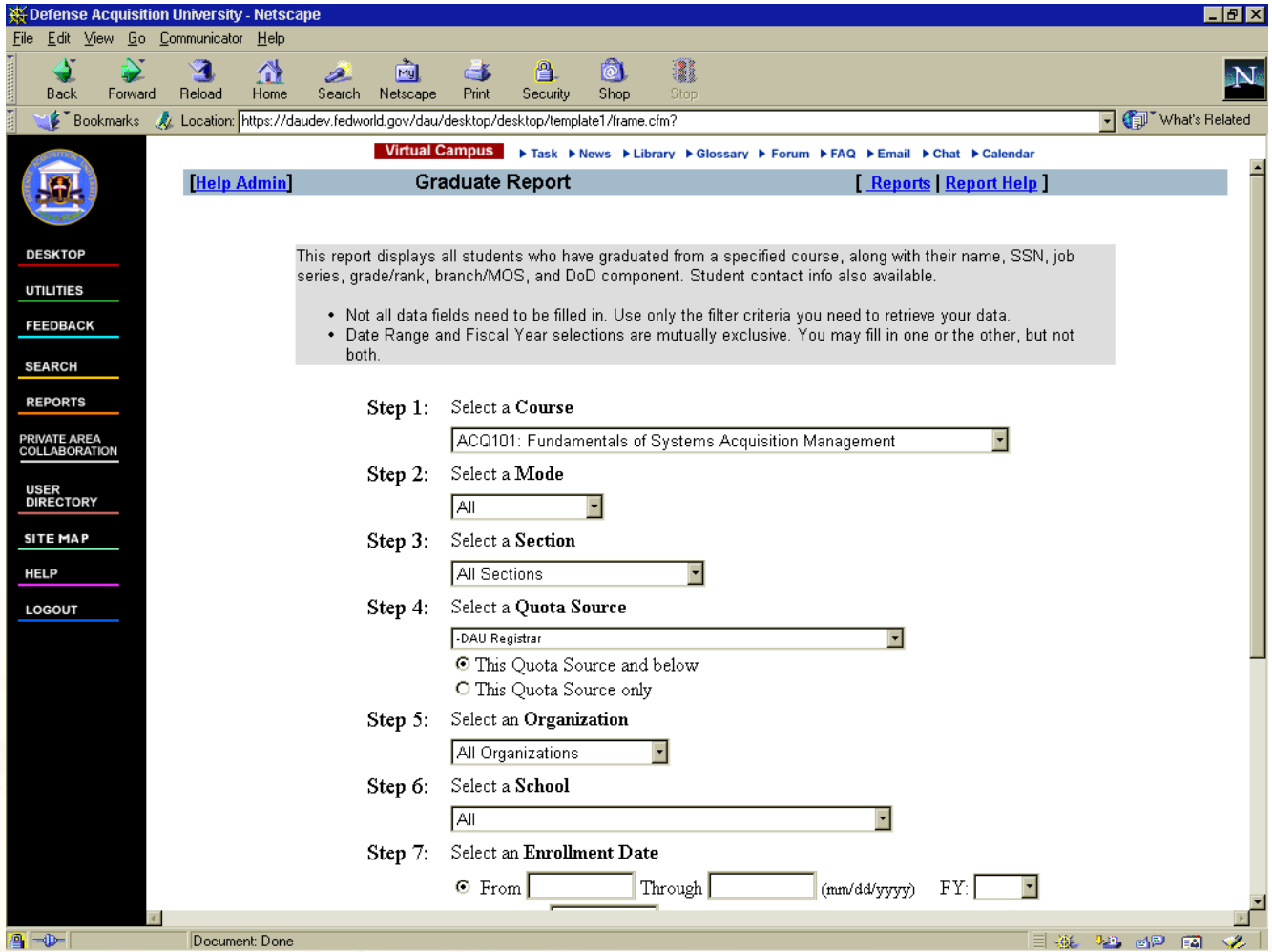
We provide a robust test engine...

- Random Test Delivery
- Random answers & distracters
- Images
- Variety of question types
- Retest
- Automatic grading
- Remediation



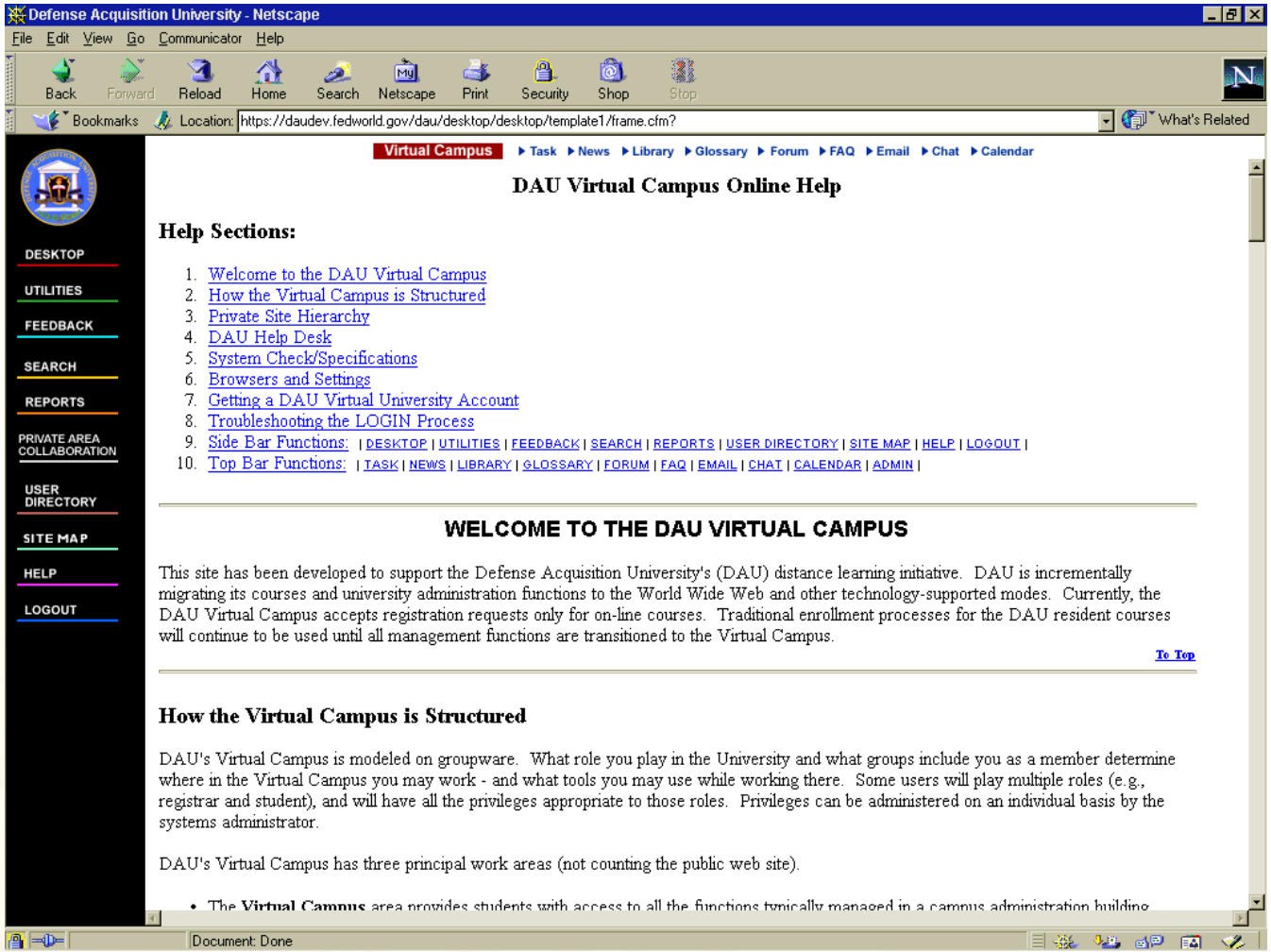
Administrative and statistical reporting capabilities...

- Canned reports
- Ad Hoc views
- Search criteria



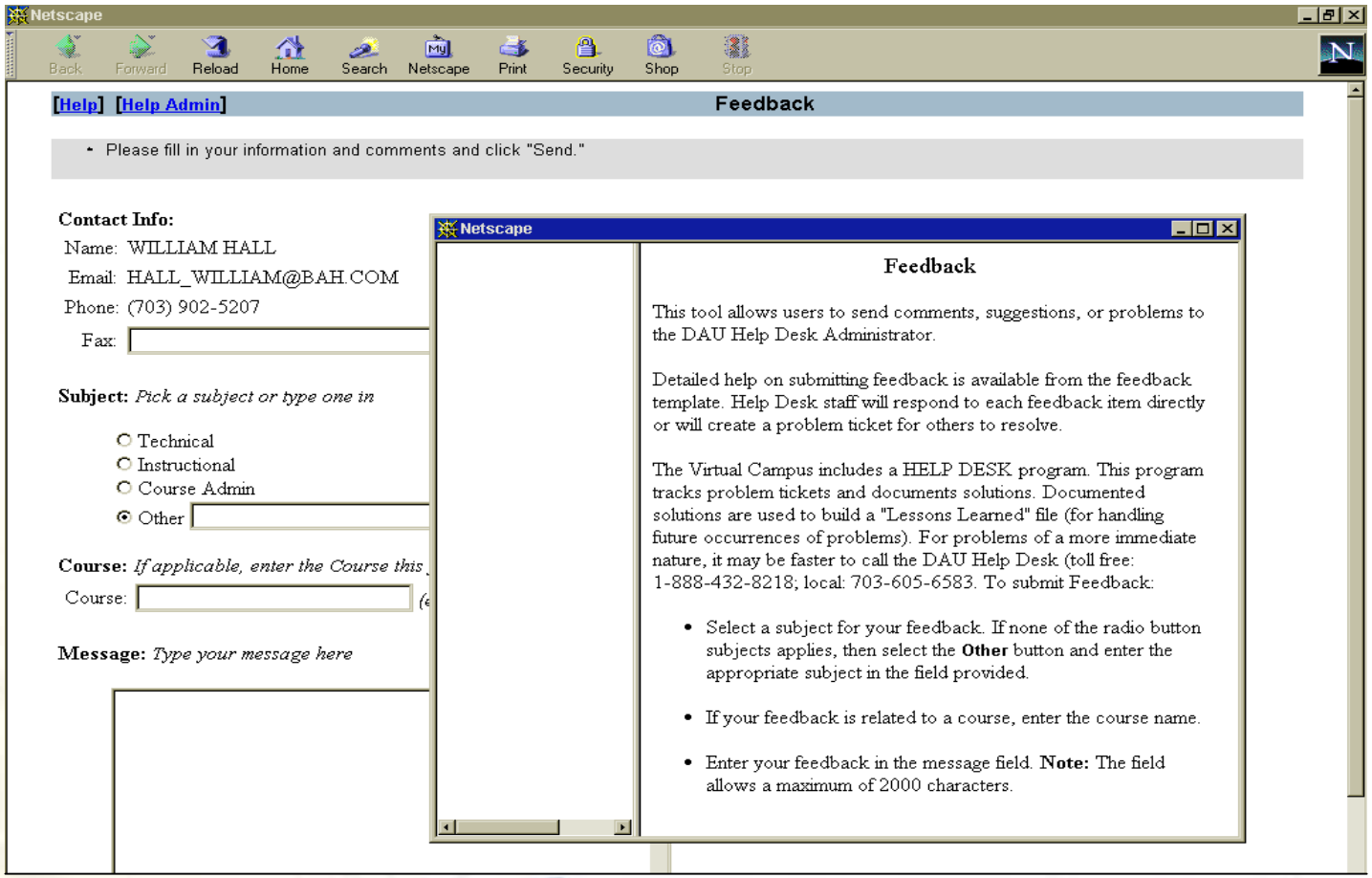
Technical support services are just a click away...

- Help Desk
- Toolbar
- Page Help



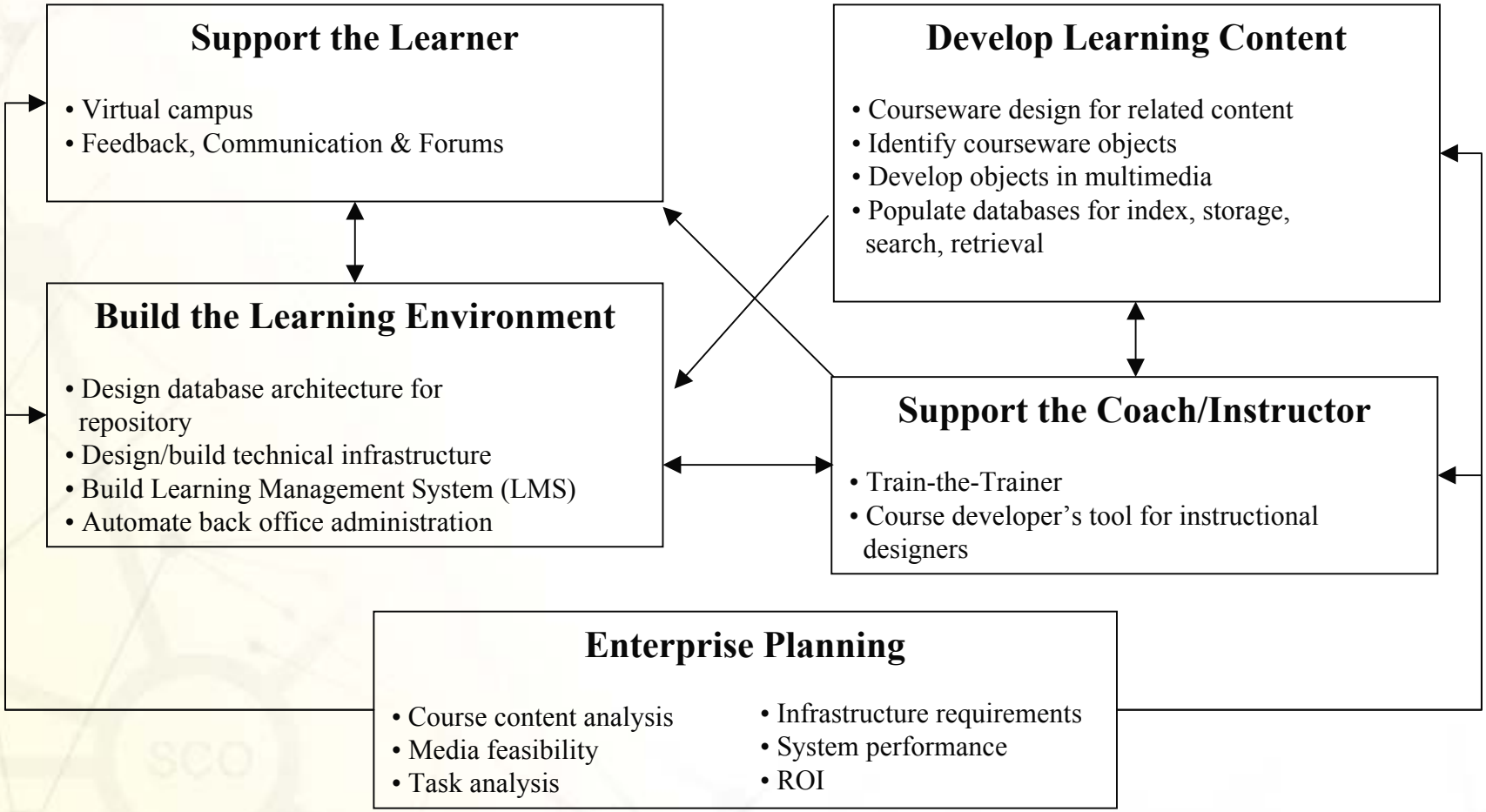
Feedback forms & user inputs have enabled us to grow & upgrade the system continually for three years...

- Feedback



The Custom LMS as part of your e-Learning structure

Enterprise e-Learning solutions are a tight integration of user requirements & technology



Using the education and training life cycle model

- Analysis
- Design
- Implementation
- Maintenance
- Evaluation

Pitfalls in LMS development

Analysis

To do

- Requirements definition
  - Organization
  - Training
- Requirements to process
- GUI prototyping
- Data diagrams
- Case diagrams
- Activity diagrams
- Class diagrams

Lessons learned

- Think big--design everything
- Pay for and continue to pay for documentation
- Tell the CEO to wait

Design

To do

- Technical Architecture
- Database build
- Finalize process model & move to design phase
- Build test plan
- Code

Lessons learned

- No design methodology
- No design leader
- Don’t build proprietary
- Have an adequate test plan
- Update requirements document

Implementation

To do

- Systems test
- Integration test

Lessons learned

- IPT methodology
- Implementation plan
- Really test
  - Technical
  - Educational

Maintenance

To do

- Help system
  - I don't understand the LMS
  - The LMS is broken
  - The courseware is broken
  - I can't do my lesson
- Configuration management
- Customer relationship management

Lessons learned

- Keep the customer happy
- Plan for this money in the beginning--20 %
- The instructor is not going away--train him/her

Evaluation

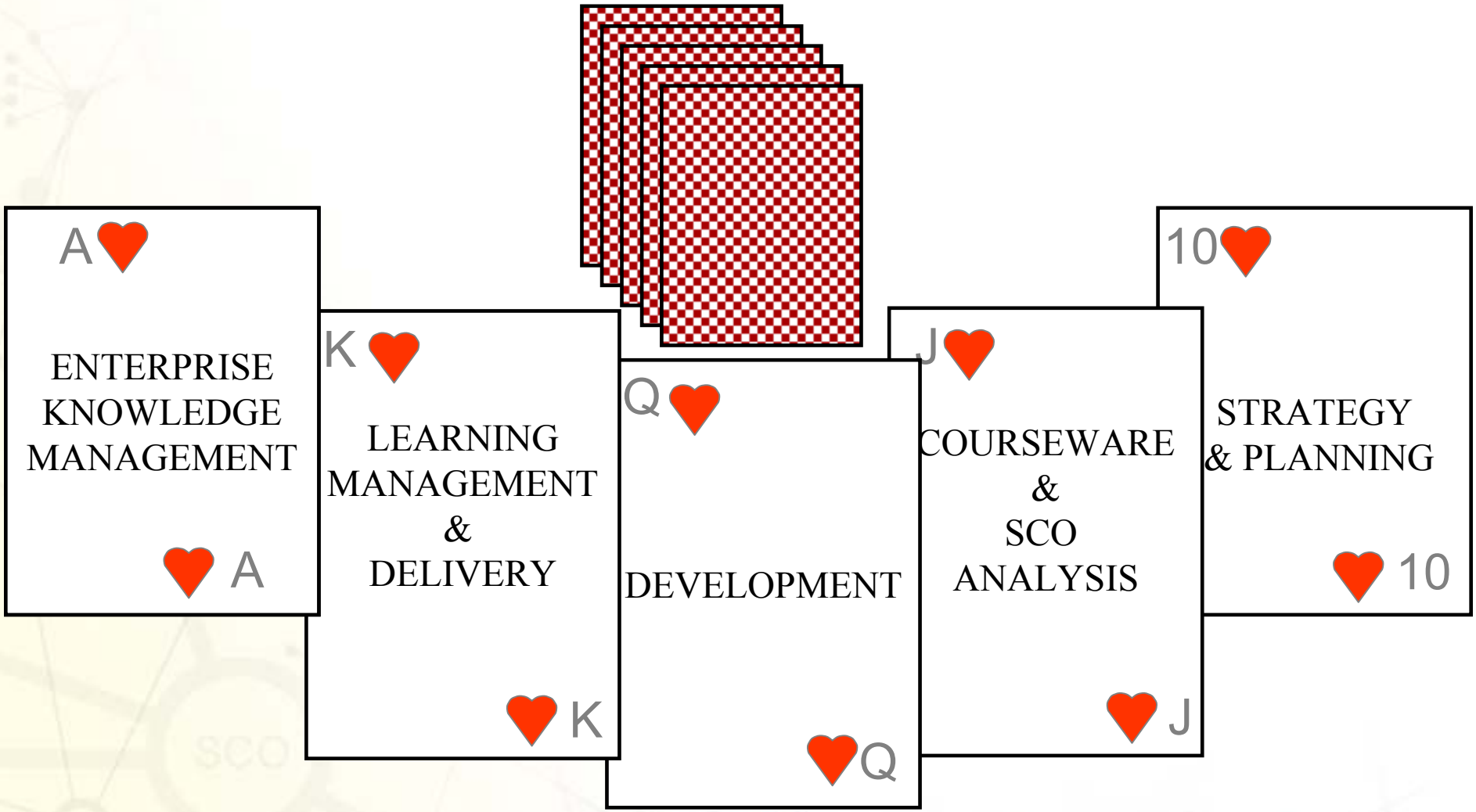
To do

- Course content analysis
- Media feasibility
- Infrastructure requirements
- Return on investment
  - Costs
  - Benefits

Lessons learned

- Plan in analysis phase
- Continue throughout life cycle
- Involve the user to support customer buy-in

Enterprise solutions are the future of life long learning!



For more information on how we can help you with your enterprise learning solution:

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